

The POSOGRAPH

A Simple Automatic Calculator
for Solving the Problem
of Correct Exposures in
☐ Photography. ☐

Silver Medal Turin International Exhibition, 1923.

Without previous experience the photographer
is able, by its means, to Calculate the Expo-
sure required to get a Perfect Negative, what-
ever may be the conditions either outdoors or
indoors.

Invaluable for Autochromes and
Colour Plates.

Agents :—

James A. Sinclair & Co.

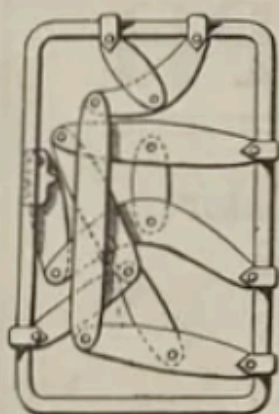
Telephone : Regent 6288.

Telegrams :

Oraculum, "Piccy,"
London.

Ltd.
54, HAYMARKET,
LONDON, S.W.1.

Description of the Instrument.



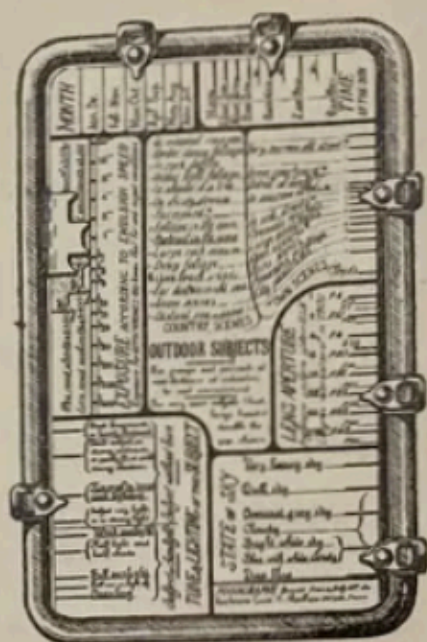
THE INTERIOR MECHANISM.

THE "POSOGRAPH" consists of a frame of polished nickel, along which slide six pointers which can at once be adjusted against scales representing all the complex factors governing exposure; whether for exterior or interior subjects. All these pointers are connected together with a most ingenious internal mechanism formed of flat metal levers, and which serve to connect the pointers to a cursor bearing four points indicating the exposures required for any class of subject with plates of four different speeds. The instrument measures $5\frac{1}{4}$ in. by $3\frac{3}{8}$ in. by $\frac{1}{4}$ in., and weighs $3\frac{1}{2}$ ounces. It is supplied in a small flat leather pocket case.

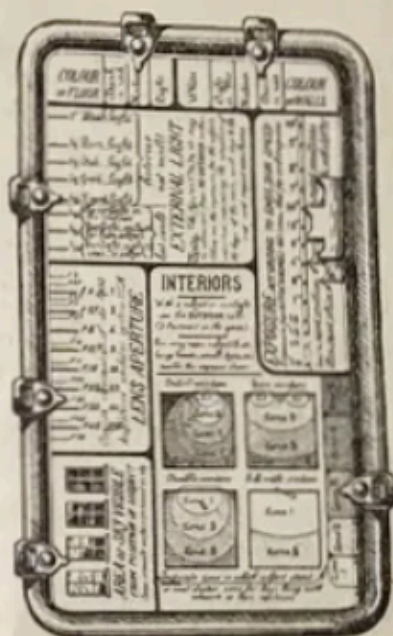
ITS ADVANTAGES.—The advantages which this device possesses, as compared with the best exposure tables, are obvious. All that is necessary is to set the pointers to the appropriate positions, and then read the exposure time indicated by the point on the cursor corresponding to the speed of the emulsion used. The simplicity of this operation prevents those mistakes which so frequently arise when making an exposure, after the photographer has had to concentrate his attention to the adjustments of the camera.

The simplicity of the "Posograph" makes it possible, not merely to calculate the time of an exposure for any given subject, but also to make an analysis of the subject. For example, we can ascertain whether the exposure required by a dark foreground will be very different from that which will be suitable for the rest of the subject, or if it is possible to secure a good rendering of a cloud effect in a landscape without making use of a graduated filter. This study of the influence of each of the factors may be made, for each subject, much more clearly and rapidly than by reference to a handbook on the subject of exposures, and very quickly gives a degree of practical skill which normally is only gained by long practice and through the costly lessons of experience.

For Interior Subjects not only is the outer light taken into consideration, but also the colour of the floor, the colour of the walls, the area of sky visible through the windows, and the position of the object in rooms lit by varying amounts of window space. It will be realised that no other instrument gives such an accurate estimate of the exposures necessary in the case of the very varied conditions met with when photographing interiors.



SIDE FOR OUTDOOR SUBJECTS.



SIDE FOR INTERIOR SUBJECTS.

The points on the cursor which indicate the exposure correspond respectively to emulsions of the following grades:—

POINT 3.—Ordinary orthochromatic emulsions (H. & D. 70) used with a 3-times yellow light-filter; or slow emulsions (H. & D. 20) used without a filter.

POINT 1.—Ordinary rapid emulsions (H. & D. 70) without a filter; rapid or orthochromatic emulsions (H. & D. 200) used with a 3-times filter.

POINT $\frac{1}{2}$.—Extra-rapid emulsions for instantaneous exposures (H. & D. 200) without a filter.

POINT $\frac{1}{4}$.—Ultra-rapid emulsions for high-speed work (H. & D. 450).

For Autochrome Plates take the figure indicated by Point 1, but read as minutes instead of seconds.

It should be borne in mind that Plate Makers very often exaggerate their H. & D. numbers, but a single practical trial made with the "Posograph" will show, once for all, the suitable point to be used with any chosen kind of plate.

NOTE.—Regarding Tropical Countries and Southern Hemispheres.—The exposures indicated are those for countries enjoying moderate climate in the Northern Hemisphere. In the tropics, latitude must be taken into consideration by moving to

the right the index finger showing the months. For instance, in equatorial countries the index fingers should indicate July during the dry period and September during the wet period. In the Southern Hemisphere, the table of the months should be transposed, and December and January should read as June and July, May and August as November and February, &c.

Concerning the Accuracy of the "Posograph."

The readings of the "Posograph" have been verified and corrected in the course of an extremely large number of practical tests, made under all possible conditions during the years that have preceded its final production.

Each face of the instrument may be regarded as an exposure record in which are noted the result of thousands of trial exposures, together with all the conditions under which they were made; and among these it is possible to find at once, one which corresponds with the exposure that is to be made. Whatever the conditions, a reading given by the "Posograph" may be regarded as the result of a practical trial, and it is this fact, which makes the instrument superior to the various exposure measurers of the vision or sensitive paper types, which, often excellent in theory, prove unsatisfactory whenever conditions are out of the ordinary.

**PRICE of the "POSOGRAPH" complete
with solid leather pocket case,**

10/6

James A. Sinclair & Co., Ltd.

Telephone : Regent 6288.

Telegrams :

Oraculum, "Piccy," London.

54, HAYMARKET,

LONDON, S.W.1.

MONTH

Jan. Dec.

Feb. Nov.

Mar. Oct.

Apr. Sep.

May. Aug.

June. Jul.

NOON

11 AM

1 PM

10 AM

2 PM

9 AM

3 PM

8 AM

4 PM

7 AM

5 PM

6 AM

6 PM

TIME

BY THE SUN

701 with x3 filter

mid emulsions (H & D 70)

Ultra rapid plates (H & D 450)

Extra rapid emulsions (H & D 200)

30"
15"
8"
4"
2"
1"

EXPOSURE ACCORDING TO EMULSION SPEED
Exposure for AUTOCHROMES 60 times that for ord. rapid emulsions

- 1 In wooded ravines
- 2 Under dense foliage
- 3 In rock defiles
- 4 Under light foliage
- 5 In shade of a tree
- 6 On shady stream
- 7 Farmyard *
- 8 Foliage in the open
- 9 Portrait in the open
- 10 Large rock masses
- 11 Dewy foliage
- 12 Open beach scenes
- 13 Far distance - At sea
- 14 Snow scenes
- 15 Distant sea or snow

COUNTRY SCENES

OUTDOOR SUBJECTS

For groups and portraits at mid-distance set indicator to suit environment.

For very near subjects (bust, large heads) double the exp. shown.

- Very narrow old street *
- Inner courtyard *
- Detail of archt *
- In narrow streets *
- In ord. streets *
- Open-air markets
- Large monuments
- Open squares *
- River scenes
- Panorama w. foliage
- City panorama
- TOWN SCENES
- Clouds

LENS APERTURE

1	F:4
2	F:5.6
4	F:8
8	F:11.3
16	F:16
32	F:20
64	F:28
128	F:40
	F:56

Dark foreground; or heavily shadowed
Dark subject; or strong contrasts; or poorly lit; or with strong shadows

Normal in tone and lighting

Subject very light; or in strong light

Weak sunlight

Half light and half shade

Full sunlight
Full sun, on light obj.
Darkling

Subject in sunlight Subject without Sun.

Subject in sunlight Subject without Sun.

STATE OF SKY

- Very heavy sky
- Dull sky
- Overcast grey sky
- Cloudy
- Bright white sky
- Blue with white clouds
- Deep blue

POSOGRAPHE. Breveté. France, Belg. Aut. etc.
Kaufmann Constr. 11 r. République. PUTEAUX, France

MONTH

Jan. Dec.

Feb. Nov.

Mar. Oct.

Apr. Sep.

May Aug.

June Jul.

NOON

11 AM 1 PM

10 AM 2 PM

9 AM 3 PM

8 AM 4 PM

7 AM 5 PM

6 AM 6 PM

TIME

BY THE SUN

Orthochrom. 20 with x3 filter
Ord. rapid emulsions (H. & D. 70)

Ultra rapid

Extra rapid emul.

30"
15"
8"
4"
2"
1"
1/2"
1/3"
1/4"
1/5"
1/6"
1/8"
1/10"
1/12"
1/15"
1/20"
1/25"
1/30"
1/40"
1/50"
1/60"
1/80"
1/100"
1/120"
1/150"
1/200"
1/250"
1/300"
1/400"

EXPOSURE ACCORDING TO EMULSION SPEED

Exposure for AUTOCHROMES 60 times that for ord. rapid emulsions

- 1 In wooded ravines
- 2 Under dense foliage
- 3 In rock defiles
- 4 Under light foliage
- 5 In shade of a tree
- 6 On shady stream
- 7 Farmyard
- 8 Foliage in the open
- 9 Portrait in the open
- 10 Large rock masses
- 11 Dewy foliage
- 12 Open beach scenes
- 13 Far distance—At sea
- 14 Snow scenes
- 15 Distant sea or snow

COUNTRY SCENES

OUTDOOR SUBJECTS

For groups and portraits at mid-distance set indicator to suit environment.

For very near subjects (bust, large heads) double the exp. shown.

- 1 Very narrow old street
- 2 Inner courtyard
- 3 Detail of archit.
- 4 In narrow streets
- 5 In ord. streets
- 6 Open-air markets
- 7 Large monuments
- 8 Open squares
- 9 River scenes
- 10 Panorama of foliage
- 11 City panorama
- 12 Clouds

TOWN SCENES

LENS APERTURE

Anglo-terre uniform system U.S.N.
Congrès international de 1900

1	f:4
2	f:5.6
4	f:8
8	f:11.3
16	f:16
32	f:23
64	f:32
128	f:45
	f:56

Dark background; or heavily shadowed
Dark subject; or strong contrasts; or poorly lit; or with strong shadows

Normal in tone and lighting

Subject very light; or in strong light

Weak sunlight

Half light and half shade

Full sunlight

Full sun on light obj.

Overexposed

Subject in sunlight Subject without sun

Subject in sunlight Subject without sun

STATE OF SKY

- Very heavy sky
- Dull sky
- Overcast grey sky
- Cloudy
- Bright white sky
- Blue with white clouds
- Deep blue

POSOGRAPHE. Breveté France, Belg. Aut. etc.
Kaufmann Constr. 11 r. République. FOTEMUX, France.

COLOUR
OF FLOOR

Dark
or red

Medium

Light

White

Light
or blue

Medium

Dark
or red

COLOUR
OF WALLS

1" Weak light

1/2 Poor light

1/3 Med. light

1/4 Good light

1/5 Good light

1/6 Sunlight in
the interior

1/25 Sunlight within
10 ft from subject

1/40 Sunlight within
5 ft from subject

Exterior
not sunlit

Ext. sunlit

EXTERNAL LIGHT

Note: The figures 1", 1/2", 1/3", etc. may be obtained from the OUTDOOR section. These are the exposures for the subjects asterisked, indicating the situation of the bays of the room, with stop f:10 and ord. rapid emulsions

EXPOSURE ACCORDING TO EMULSION SPEED

Exposure for AUTOCHROMES 60 lines that for ord. rap. em.

10" 5" 2" 1" 30" 15" 8" 4" 2" 1" 1/2 1/3 1/5 1/10

Ord. rapid emulsions

Ortho with x3 filter

f:8	1
f:11.3	2
f:16	4
f:23	8
f:32	16
f:45	32
f:56	64
f:80	128

LENS APERTURE

Congrès international de 1900
Anglèrre uniform system U.S.N.

INTERIORS

With a subject in sunlight use the OUTDOOR table (9 Portrait in the open)

For very near subject (bust, large heads, small objects, etc) double the exposure shown

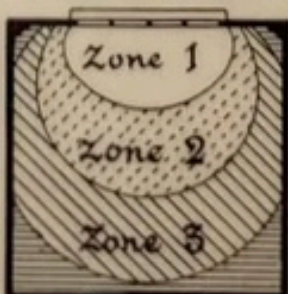
Ordin^y window



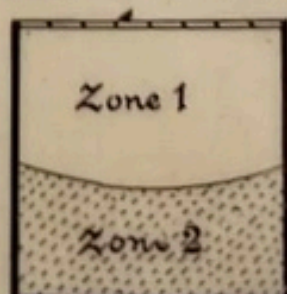
Two window



Double window



Full width window



AREA OF SKY VISIBLE FROM POSITION OF SUBJECT

Snow or sunlit surface reckoned as sky

Indicate zone in which subject stand or next darker zone for bays hung with network or lace curtains

Zone 5
Zone 4
Zone 3
Zone 2
Zone 1

COLOUR
OF FLOOR

Dark
or red

Medium

Light

White

Light
or blue

Medium

Dark
or red

COLOUR
OF WALLS

1" Weak light

1/2 Poor light

1/3 Ord. light

1/5 Good light

1/10 V. good light

1/15 { No sunlight in the interior

1/25 { Sunlight within far from subject

1/40 { Sunlight within near to subject

Exterior
not sunlit

Ext. sunlit

EXTERNAL LIGHT

Note. The figures 1", 1/2, 1/3, etc. may be obtained from the OUTDOOR section. These are the exposures for the subjects ascribed, indicating the situation of the bays of the room, with stop f:10 and ord. rapid emulsions

EXPOSURE ACCORDING TO EMULSION SPEED

Exposure for AUTOCHROMES 80 times that for ord. rap. em.

10"
5"
2"
1"
50"
15"
8"
4"
2"
1"
1/2
1/3
1/5
1/10

Ord. rapid emulsions
Ortho with x3 filter
Extra

f:3
f:3.5
f:4
f:5
f:5.6
f:8
f:11
f:16
f:20
f:25
f:28
f:32
f:40
f:45
f:56

1
2
4
8
16
32
64
128

LENS APERTURE

Congrès international de 1900
Anglèterre uniform system U.S.A.

INTERIORS

With a subject in sunlight use the OUTDOOR table (9 Portrait in the open)

For very near subject (bust, large heads, small objects, etc) double the exposure shown

Ordin' window



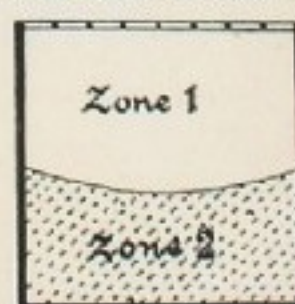
Two window



Double window



Full width window



Indicate zone in which subject stand or next darker zone for bays hung with network or lace curtains



AREA OF SKY VISIBLE
FROM POSITION OF SUBJECT
Snow or sunlit surface reckoned as sky

Zone 5
Zone 4
Zone 3
Zone 2
Zone 1

MOIS

Janv. Dec.

Fév. Nov.

Mar. Oct.

Avr. Sep.

Mai. Août

Juin. Juill.

11 à 13

10 & 14

9 15

8 16

7 17

6 18

HEURE
SOLAIRERapidité moyenne
50° H&DExtra rapide ord.^{re} (150° H&D)Sensibilité extrême
600° H&D

Ultra rapide (350° H&D)

12"
8"
4"
2"
1 sec.^{re}

1/2

1/3

1/5

1/10

1/15

1/25

1/50

1/100

1/200

1/300

1/500

1/1000

TEMPS de POSE
SUIVANT LA SENSIBILITÉ DE L'ÉMULSION
Pour AUTOCHROMES poser 60 fois plus que pour extra rapide ord.

1 Fond de ravin boisé

2 1/2 Bois à couvert épais

3 Excavation de rochers

4 1/2 Bois couvert léger

5 Scènes 1/2 un arbre

6 Rivière ombragée

7 Cour de ferme *

8 Verdure à découvert

9 Portrait à découvert

10 Ensemble de rochers

11 Verdure au. nappe d'eau

12 Scènes 1/2 plage de sable

13 Lointains - Marines

14 Scènes sur la neige

15 Lointains de mer ou de neige

A LA CAMPAGNE

VUES EN PLEIN AIR

Pour groupe et portrait à
moyenne distance, indiquez
le lieu où l'on opère.Pour sujets très près (buste,
grosse tête, etc.)
doubler le
temps trouvé

Vieille rue très étroite *

Cour intérieure *

Détail d'arch. *

Rue de ville étroite *

Rue ordinaire *

Marché en plein vent

Ensemble de monument *

Grande place *

Vue de fleuve

Panorama av. verdure

Panorama de gr. ville

A LA VILLE Nuages

F: 2,8

F: 4

F: 5,6

F: 8

F: 11,3

F: 16

F: 20

F: 23

F: 28

F: 32

F: 40

F: 45

F: 50

F: 55

F: 60

F: 65

F: 70

F: 75

F: 80

F: 85

F: 90

F: 95

F: 100

F: 105

F: 110

F: 115

F: 120

F: 125

F: 130

ETAT du CIEL

Couvert très sombre..

(Ciel d'orage)

Couvert et sombre...

(Ciel de pluie)

Couvert et gris.....

(Ciel incertain)

Nuageux.....

Blanc lumineux

Bleu av. nuages blancs

Bleu très pur.....

POSOGRAPHE. Breveté S.G.D.G.
Kaufmann Constr. 11 r. République. PUTEAUX.

Sujet sans soleil

Sujet au soleil

TEINTE & ÉCLAIRAGE du SUJET

1^{er} plan foncé ou
sujet très ombragé
Sujet foncé ou
grands contrastes
ou peu de lumière
ou grandes ombresTeinte normale
et lumière norm.Sujet très clair ou
en forte lumière

Soleil pâle

Mi-parties d'om-
bre et de soleil

Plein soleil

Plein sol. 1/2 suj. clair

Éblouissant

COULEUR
du SOL

Foncé
ou rouge

Moyen

Clair

Blancs

Clairs
ou Bleus

Moyens

Foncés
ou rouges

COULEUR
des MURS

1 Lumière faible

$\frac{1}{2}$ Lum. médiocre

$\frac{1}{3}$ Lum. ordinaire

$\frac{1}{5}$ Bonne lumière

$\frac{1}{10}$ Très bonne lum.

$\frac{1}{15}$ Pas de soleil à l'intérieur

$\frac{1}{25}$ Soleil à l'intérieur loin du sujet

$\frac{1}{40}$ Soleil à l'intérieur près du sujet

Pas de soleil
à l'extérieur
Ensoleillé à l'extérieur

LUMIÈRE EXTÉRIÈRE

Nota: Les chiffres $\frac{1}{15}$, $\frac{1}{25}$, etc. peuvent être déterminés sur la face PLEIN AIR. Ce sont les temps de pose des sujets marqués d'un 0, indiquant la situation des bords de la pièce, avec diaphragme F10, et émulsion rapide ordinaire.

f:3

f:4

f:5

f:7

f:10

f:14

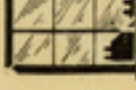
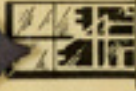
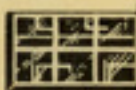
f:20

f:28

f:40

Cougrès international de 1900
Anglo-irre uniform system U.S.N.

DIAPHRAGME



QUANTITÉ DE CIEL VUE

DE LA PLACE DU SUJET

Orange ou surface ensoleillée complète comme ciel

VUES D'INTÉRIEUR

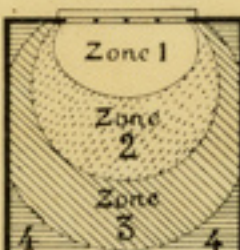
Quand le sujet est au soleil opérez comme en PLEIN AIR, au verso (2. Portrait à découvert)

Pour sujets très près: buste, grosse tête, fleurs, petits objets, etc; doublez le temps trouvé

Fenêtre ordinaire



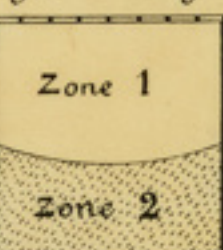
Double fenêtre



Deux fenêtres



Grand vitrage



Indiquer la zone où est le sujet

ou une zone plus sombre pour bords munies de rideaux en tulle ou en guipure

TEMPS de POSE SUivant LA RAPIDITÉ D'ÉMULSION
Pour AUTOCHROMES, pour copies plus que pour émuls. rap. ord.

8m
4m
2m
1m
50"
16"
8"
4"
2"
1"
 $\frac{1}{2}$ "
 $\frac{1}{3}$ "
 $\frac{1}{5}$ "
 $\frac{1}{10}$ "

Emulsions rap. ord.
Ordo. au crénelé
Extra rap. p. autochromes
Ultra rap.

Zone 5
Zone 4
Zone 3
Zone 2
Zone 1